IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.	: 10/717,474	Confirmation No.	: 9359
First Named Inventor	: Yutaka MATSUNOBU		
Filed	: November 21, 2003		
TC/A.U.	: 3618		
Examiner	: F B VANAMAN		
Docket No.	: 056203.49196C1		
Customer No.	: 23911		
Title	: Hybrid Electrical Vehicle Employing Permanent Magnetic Type Dynamo-Electric Machine		

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This is a pre-appeal brief request for review.

The sole issue to be decided concerning the final rejection is the ability of the references to be combined and more specifically the disputed showing of the references.

Claims 1, 9 and 17 have been finally rejected under 35 U.S.C. §103 as unpatentable over Hattori (U.S. Patent No.: 6,048,289) in view of Fumio et al. (Japanese Publication No.: JP 09271151) as detailed at item 4 on pages 2 and 3 of the final patent Office Action.

Claim 1 recites a hybrid electric vehicle employing a permanent magnet type dynamo-electric machine wherein a shape of the rotor in a circumferential direction at each pole is nonsymmetrical and wherein a width in a rotational

direction of a permanent magnet inserting hole provided within the rotor iron core is larger than a width of each one of said plurality of permanent magnets and wherein a space resulting from a difference in width between said inserting hole and the permanent magnet is a space in the inserting hole which is positioned forward of the permanent magnet in a direction of rotation of the rotor which causes forward movement of the electric vehicle and wherein as a result of this space, a ratio between forward rotation torque and reverse rotation torque is in a range from 1: 1.05-1.2 with the torque of the reverse rotation being greater than the torque of the normal forward movement rotation.

As indicated in the Final Rejection, the reference to Hattori is a hybrid vehicle which fails to disclose the permanent magnet relationship claimed in claim 1 with respect to the permanent magnet inserting holes and their respective relationships in the rotor. The secondary reference to Fumio has non-magnetic portions provided in the opposite direction to the rotor when that rotor is driven in a normal rotating direction so that the torque and the normal rotation direction is made larger than the torque in the reverse rotating direction. Fumio, as discussed above, and as disclosed by the translated portions, requires specifically that the rotating direction be limited to <u>one</u> direction. For reverse movement of the vehicle, the rotational speed of the electric machine is reduced <u>by the speed changed mechanism</u> and the

transmitted rotation direction is reversed. Thus, Fumio has no need or reason for increasing the torque in the reverse rotation direction.

In the first full paragraph of page 4 of the Final Rejection, the Examiner indicates that Applicants' assertion that the reference to Fumio, used to modify the reference to Hattori, is limited to rotation in one direction only but that "Applicant has provided no reference to support this assertion, for example, by signing a particular passage in the text of Fumio which positively limits the rotation of Fumio's motor to one direction". The Examiner indicates that such evidence should be cited to support the assertion and the arguments of Counsel cannot take the place of evidence in the record.

Applicants have twice previously submitted an English translation of a pertinent portion of Fumio to support the contention that Fumio has a motor that only runs in one direction. In the Advisory Action of September 13, the Examiner contends that this is not clear because lines 11-16 of paragraph [0027] of Fumio include language that there is torque generation in both directions.

Applicants submit that the torque is not rotation and Fumio clearly indicates that reverse direction torque is small. It is the transmission which reverses the direction of the transmitted rotation for backward movement. Thus the clear language of Fumio is that the direction of rotation of the dynamo-

electric machine "is limited to one direction". There is no evidence that counters this clear language.

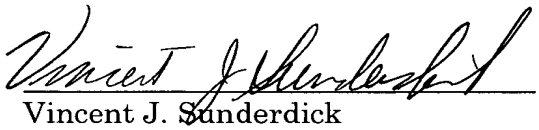
Without this Examiner interpretation, there is no possible combination of references because Fumio accomplishes reverse movement by a "speed change mechanism" and there is no need or reason to increase the torque in the reverse rotation direction, whereas the presently claimed invention requires a machine and an engine connected to a drive shaft in series without a switching gear for the forward and backward movement. It is submitted that Fumio has no such limitation and there is no reason it would be incorporated into the subject matter of Hattori and if it was the direction of rotation teaching is clearly not appropriate to be combined with Hattori to meet the claim limitations of the present invention.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #056203.49196C1).

Respectfully submitted,

November 30, 2005



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English Translation of Relevant Portion in JP-9-271151

[0026]

In this case, the structure is characterized in that the permanent magnet 36 is inserted so as to be slanted to the direction of rotation of the permanent magnet insertion hole 34. The permanent magnet insertion hole 34 is formed larger in the peripheral direction than the size of the permanent magnet 36, and the permanent magnet 36 is inserted into the permanent magnet insertion hole 34 so as to be slanted to the direction of rotation.

[0027]

In the dynamo-electric machine used for the electric vehicle, the direction of rotation thereof is limited to one direction. That is, if the dynamo-electric machine rotates in the direction of arrow B at a time when the electric vehicle moves forward, the dynamo-electric machine also rotates in the direction of arrow B at a time when the electric vehicle moves backward. When the electric vehicle moves backward, the transmission mechanism reverses the direction of the transmitted rotation as well as reduces the rotational speed of the dynamo-electric machine. Accordingly, it is sufficient that the torque generated by the dynamo-electric machine generates a sufficient great torque with respect to the direction of rotation B, and the torque rotating in the opposite direction (clockwise direction) to the direction of arrow B may be small. In view of the above, the structure for increasing the torque generated by the dynamo-electric machine in the case of the direction of arrow B, and reducing it in the

case of the opposite direction has a point that the permanent magnet 36 is inserted to the permanent magnet insertion hole 34 so as to be slanted to the direction of rotation B.